



An
Bord
Pleanála

Inspector's Report ABP-308120-20.

Development

Proposed Substation

Location

Srah, Rhode, Co. Offaly

Prospective Applicant

OBM Solar Limited

Planning Authority

Offaly County Council

Type of Application

Pre-Application consultation under
Section 182E of the Planning and
Development Act 2000, as amended.

Date of Site Inspection

14th October 2020

Inspector

Mairead Kenny

1.0 Overview

- 1.1. This report refers to a request to enter pre-application consultation which was received by the prospective applicant on 7th September 2020. The proposed development relates to the development of a 110kV substation that will form the connection point to the national grid for a proposed Solar PV and battery storage facility on the lands.
- 1.2. One meeting was held remotely on the 19th of October. A follow-up letter dated 16th November was received.
- 1.3. A letter requesting closure, which is dated 25th of November was received.

2.0 Site Location and Description

- 2.1. The site is in the townland of Srah in a rural location approximately 3km north of Rhode town. The overall land holding relevant to the proposed substation development and a planned renewable energy project (Solar PV and battery storage) is 131 hectares.
- 2.2. The stated area of the site is 1.1 hectares and comprises a backland plot of agricultural lands. The site comprises two main areas, an existing entrance and access lane and secondly the main body of the site which is situated about 150m from the public road. A stream known as the Clonin River passes along the northern boundary of the access laneway. The location of other watercourses in the area is presented on Figure 3-5 of the consultation document.
- 2.3. At the site entrance to the north and south are derelict unoccupied buildings, one of which is within the site boundary. At the opposite side of the public road to the site is the site of a former dwellinghouse, which has been recently demolished. The information presented by the prospective applicant is that the two former houses near the entrance are no longer in residential use and that permission has been granted at the site across the road for construction of a house. There are other dwellinghouses to the south of the entrance at both sides of the public road.
- 2.4. As described in section 3.4 of the Consultation Document, there are two national monuments and associated SMR zones within close vicinity to the proposed development. Works are described as being outside the SMR zones.

3.0 Proposed Development

3.1. The subject development is a **110kV substation**. The substation is planned to be connected to a proposed Solar PV development of maximum export capacity of up to 109MW and battery storage units with a storage capacity of up to 50MW.

3.2. **In more detail the proposed substation will comprise** the following main elements:

- 110kV outdoor switchyard and control buildings.

3.3. **The switchyard will comprise :**

- Grid step-up transformer and firewall
- Grid transformer and ancillary equipment
- House transformer and NER
- Power quality compensation equipment
- 110kV busbar, switchgear and instrument transformer
- Lightning protection masts, gantries and post insulators and
- 2 no. control buildings – Eirgrid control room and IPP control room. These buildings will be separated from each other and will house control gear, indoor switchgear and telecommunications equipment and welfare facilities.
- The completed substation will be enclosed with Eirgrid type steel palisade fencing.

3.4. Further details of the planned Solar PV development and battery storage is provided in section 2.1 of the documentation.

3.5. The grid connection arrangement shown on the original layout is 'tail-fed'. From the proposed 110kV substation the underground connection would be cabled along the L1009, follow the local road southwards and then westwards to access Rhode power station. The latter route involves a road which has restricted usage with access controlled by a barrier but is described in the documentation as a local road.

3.6. **A revised layout** was submitted as part of the submission dated 16th November and this shows a dedicated 'future expansion area to facilitate a loop in' grid connection.

- 3.7. The documentation provided sets out further details including in relation to the requirement for earthworks, drainage, construction procedures, monitoring and operational procedures.
- 3.8. Due to the hydrological connection to certain European sites it is envisaged that any future application would be subject to Appropriate Assessment.

4.0 **Planning History**

- 4.1. The Solar PV development and the battery storage units will be subject of a separate application to the planning authority.

5.0 **Precedent Cases**

- 5.1. I refer the Board to a number of cases which were deemed not to be strategic infrastructure. This includes a number of proposed 110kV substations with tail fed connections to the grid.
- 5.2. **ABP-307022** – a proposed 110kV underground cable and associated works required to facilitate the connection of a proposed wind farm to the national transmission grid at the proposed EirGrid Bracklone substation in Portarlington County Laois. It was stated that the connection would be tail fed and that the substation would not be a node on the national transmission network. The subject cable along with a substation subject of a separate application were to be retained as private assets.
- 5.3. **ABP-307295-20** is related to the above 307022 and which had already been determined not to be strategic infrastructure. The proposed development was described as a 110kV station looped into an existing 110kV overhead line to cater for transfer of power from existing lines for redistribution and to provide additional capacity to cater for growth in the area including the distribution of electricity from a wind farm which was itself not strategic infrastructure. ESB categorised the project as an upgrade to the distribution system.
- 5.4. **ABP-306140** - 110kV substation bay, electrical cable connection and associated works at Gorman 220kV substation, in Meath – Eirgrid provided confirmation that this would not be a new node but would be part of the existing Gorman 220/110 kV node.

- 5.5. **ABP-304789** – A proposed a 110kV grid connection and substation connecting the consented Moanvane windfarm to the national grid at Mountlucas substation. The connection was a tail fed connection. The purpose of the permitted substation and proposed cable route was stated to be to facilitate power being brought from the Moanvane wind farm (itself not strategic infrastructure) to the existing Mountlucas substation only. This is similar in terms of the nature of the proposed development, the considerations and decision to the above case ABP-307022 above.
- 5.6. **ABP- 303587** – Replacement by Eirgrid of an existing 110kV AIS substation with a 110 KV GIS substation.
- 5.7. **ABP – 301420** – A proposed tail-fed 110 kV substation and associated cable intended to serve only an associated solar energy development, and which was not to be a node on the national transmission system. The substation would serve only a solar farm and would feed into a permitted 400/110kV substation which was part of the Laois-Kilkenny Reinforcement Project.
- 5.8. **ABP-301236 – 18** – A proposed development of electrical plant and grid connection associated with provision of battery storage in Poolbeg, Dublin 2- using electricity imported from the national grid and then released to provide grid system services.
- 5.9. At the pre-application meeting held I requested that the applicant present information on any cases in support of its position that the proposed development is strategic development. The letter of 16th November 2020 states that following review the prospective applicant was unable to identify any such decisions. I repeated the exercise and likewise did not identify any such precedent decisions, which I considered to be of direct relevance.

6.0 **Prospective Applicant's Case**

- 6.1. The original submission focuses on the context of meeting targets for renewable energy and reductions in GHG emissions. The proposed 110kV substation will become a node on the national grid and will also form the connection point for the associated proposed solar development and for future renewable projects in the area. The development is essential in this context in terms of the achievement of renewable energy goals and the wider goal of decarbonising the economy and is Strategic Infrastructure Development.

6.2. The supplementary information presented in the letter dated 16th November which accompanies the revised site layout may be summarised as follows:

- As a 100kV substation the proposed substation will be a 'node' and become part of the transmission system, initially connected as a 'spur node' but designed to be connected into the wider transmission system at a later stage.
- Extending the substation infrastructure to allow for it to be looped in can be accommodated on site and the revised layout identifies the expansion space available.
- Future expansion provides EirGrid with options to connect the proposed substation with other existing nodes, adding resilience and increasing security of supply. Once the second connection is made the substation becomes a 'meshed node'.
- The substation and cable connection will be an EirGrid asset.
- As the existing Derryiron substation (at Rhode power plant) has already multiple connections and limited space for expansion a new transmission node in the area would be of considerable benefit.

6.3. The applicant considers that the subject development constitutes strategic infrastructure. The submission is that the substation would be a node. Although precedent cases could not be identified the prospective applicant stated that the main difference between the proposed substation and other 'tail fed' substations is that the proposal is designed to be adaptable and to become a loop-in or meshed node for connection of other users and for extension and reinforcement of the transmission system. The view was reiterated therefore that the proposed development is strategic infrastructure.

7.0 Legislative Provisions

7.1. Under section 182A (1) of the 2000 Act (inserted by section 4 of the 2006 Act) where a person, (thereafter referred to as the 'undertaker') intends to carry out development comprising or for the purposes of electricity transmission, (hereafter referred to in this section and section 182B as 'proposed development'), the undertaker shall

prepare, or cause to be prepared, an application for approval of development under section 182B and shall apply to the Board for such approval accordingly.

7.2. Subsection 9 states that in this section **‘transmission’** in relation to electricity, shall be construed in accordance with section 2(1) of the Electricity Regulation Act 1999 but, for the purposes of this section, the foregoing expression, in relation to electricity, shall also be construed as meaning the transport of electricity by means of

(a) a high voltage line where the voltage would be 110 kilovolts or more, or

(b) an interconnector, whether ownership of the interconnector will be vested in the undertaker or not.

7.3. In section 2(1) of the Electricity Regulation Act, 1999, **“transmission”** is defined as

“The transport of electricity by means of a transmission system, that is to say a system which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying electricity from a generating station to a substation, from one generating station to another, from one substation to another or to or from any interconnector or to final customers but shall not include any such lines which the Board may, from time to time, with the approval of the Commission, specify as being part of the distribution system but shall include any interconnector owned by the Board.”

7.4. **“Distribution”** is defined as

“The transport of electricity by means of a distribution system, that is to say, a system which consists of electric lines, electric plant, transformers and switch gear and which is used for conveying electricity to final customers.”

“Electric plant” is defined as:

“...any plant, apparatus or appliance used for, or for the purposes connected with, the generation, transmission, distribution or supply of electricity other than –

(a) An electric line.....”

8.0 Assessment

I consider that the development of the proposed 110 kV substation and related infrastructure is 'electrical plant' as defined by the Electricity Regulation Act 1990.

The prospective applicant's position, in summary, is that the proposed substation will constitute part of the transmission system notwithstanding that it is to include, in the first instance, a tail fed grid connection, initially serving only the proposed solar energy development at adjacent lands. The substation is to be an EirGrid asset and designed to the required specifications. It will be a spur node on the network initially and is designed to be extended into the wider transmission system. I have outlined the applicant's case in detail above.

I consider that the significant matters in this case include:

- Immediately on completion it is intended that the substation will be taken over by Eirgrid.
- The revised layout incorporates additional space for future expansion to be connected to the grid by way of a looped arrangement.
- This future expansion area has no purpose other than to function as part of the wider transmission system with a looped in connection.
- This area of future expansion is a substantial proportion of the subject development.
- The future expansion would provide for extension and reinforcement of the transmission system.

The proposed substation would initially function solely to serve the planned solar energy development by way of a tail fed connection. In this circumstances it might be concluded that the proposed development is not part of the transmission system.

However, a clear overarching function of the substation in the near future will be as part of the transmission system. The development provides for a lopped in connection to be put in place and for the substation (at that stage a meshed node) to operate as an intrinsic and inseparable part of the transmission system.

In my opinion it would be inappropriate not to consider this future function, which is a significant component of the proposed development. Based on the applicant's

submissions including the revised site layout plan presented, I consider that the proposed development meets the definition of 'electricity transmission' under section 2 (1) of the Electricity Regulation Act 1999. As such the proposed development is strategic infrastructure development.

The Board will be aware that only at the time of the final determination under the EirGrid connection agreement will there be closure on the question of whether or not the proposed development would form part of the transmission network. The prospective applicant's submissions note that Derryiron substation in Rhode has already multiple connections and limited space for expansion a new transmission node in the area would be of considerable benefit. I note also that the Eirgrid Transmission Development Plan 2017-2027 points to the need for development of the network including for the promotion of renewable energy which is of particular relevance in the region in which the proposed development would be located. I consider that these facts support my conclusion regarding the future function of the proposed substation.

I have outlined in detail above a number previous cases considered by the Board. There are a number of precedent cases whereby the Board concluded that tail-fed connections serving a specified development is not strategic infrastructure. For the most part the proposed development of 110kV substations which have been deemed to constitute strategic infrastructure have involved looped connections with all of the power within the circuit being entirely diverted into the substation and back out again. In such cases the view has been taken that the new substation becomes, in effect, a new node on the 110kV transmission line and as such constitutes strategic infrastructure.

A decision in this case to determine that the proposed development of a tail-fed substation serving only a proposed solar farm in the first instance is strategic infrastructure might be deemed to be a decision which is inconsistent. However, in the particular circumstances of this case I accept that in the not too distant future the subject substation is likely to be developed as a meshed node. On that basis I consider it reasonable to conclude in agreement with the submission of the prospective applicant that the proposed development does constitute strategic infrastructure.

In support of the above it is useful at this point also to refer to the long title of the Act and the criteria contained in section 37A(2) for determining whether development constitutes strategic infrastructure. This approach has been taken in other cases notwithstanding the fact that the section 37A(2) criteria do not explicitly apply to cases falling within the scope of section 182A.

Section 37A(2)(a) requires the development to be of strategic economic or social importance to the state or region in which it would be situated. Having regard to the relatively small scale of the development and the fact that the solar energy development would not itself constitute strategic infrastructure, I do not consider that there is a strong case for this criterion to be met.

Section 37A(2)(b) requires the development to contribute substantially to the fulfilment of any objectives in national or regional strategies. Again, I would consider that the relatively limited scale of development rules out this criterion.

Section 37A(2)(c) refers to the development having a significant effect on the area of more than one planning authority. The submission of the prospective applicant is that the proposed substation will have capacity to serve future renewable energy development in this area which is close to the county boundaries of Westmeath (3.5km), Meath (4.5km) and Kildare (7.5km). The estimate given is that the proposed solar farm will only use 48% of the total capacity of the substation and as such it will have a significant effect on the areas of these planning authorities in the development of lands for future renewable energy projects. Having regard to the potential future connections between the substation and the use of other lands in an adjacent county, it may be stated that the subject development would meet this criterion.

Taking all of the above into account I consider that the balance of the argument in this case falls in support of the case made by the prospective applicant.

I conclude that the proposed development as described in the submitted documentation constitutes strategic infrastructure within the scope of section 182A of the Planning and Development Act 2000, as amended, necessitating an application direct to the Board.

I attach an Appendix listing relevant prescribed bodies.

9.0 Recommendation

I recommend that OBM Solar Limited be informed that the proposed development consisting of a 110kV substation and associated infrastructure at Srah, Co. Offaly as set out in the plans and particulars received by An Bord Pleanála on 7th of September 2020 and the 16th of November 2020 falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and that a planning application should be made directly to the Board.

Mairead Kenny
Senior Planning Inspector
27th of November 2020

Appendix – list of prescribed bodies

The following list identifies the prescribed bodies which are considered relevant in this instance for the purposes of Section 182A(4)(b) of the Act.

- Minister for Housing, Planning and Local Government
- Minister for Communications, Climate Action and Environment
- Offaly County Council
- Meath County Council
- Westmeath County Council
- Kildare County Council
- Transport Infrastructure Ireland
- An Taisce
- Heritage Council
- Irish Water
- Commission for Regulation of Utilities, Water and Energy
- An Chomhairle Ealaíon
- Fáilte Ireland